

ABSTRACT:

The invention proposes a method of and a device for coding a signal (S) to obtain a scalable bit-stream (O). The signal (S) comprises blocks of values. Each block is represented (20) as a sequence of bit planes and the values are scanned and transmitted (21,23) in an order of decreasing bit plane significance. For each bit plane the scanning and transmitting (21,23) are performed in a rectangular scan zone (R_{MAX}/C_{MAX}) starting from a corner of the block (usually an upper-left corner). Preferably, the scanning and transmitting (21,23) is performed on each block individually. The produced bit-stream (O) is quantized to a desired bit-rate by simple truncating (3) the bit-stream (O) at a desired position.

Initially all values are marked insignificant (22). For each bit-plane, a bit is transmitted (22,23) for each significant value (SC), i.e. a value that has been newly significant (NSC) in a previous bit-plane. Besides the significant values (SC), an indication is transmitted whether or not any insignificant values become newly significant (NSC) in the current bit plane. The dimensions of the rectangular scan zone (R_{MAX}/C_{MAX}) are selected and transmitted for the newly significant values (NSC) in the current bit plane. This is followed by an indication for each not previously significant value inside the scan zone whether the value has become newly significant (NSC) and a sign bit for each newly significant value (NSC). After that a next bit plane (20) is processed. The values may be transform coefficients.

20 Fig. 3